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GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
                                    - nucleic search, using sw model
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	AX056426 Sequence	AB037759 Homo sapi	AJ243533 Mus muscu	AF193343 Mus muscu	AF193344 Mus muscu	AF193342 Mus muscu	AL157497 Homo sapi	AK027011 Homo sapi
ID	3 9 AX056426	AB037759	MMU243533	AF193343	AF193344	AF193342	HSM802494	AK027011
08	. 6	82	94	94	94	94	93	83
Query Match Length DB ID	5163	4994	5212	5230	5322	5141	3351	2986
Query Match	93.3	89.5	70.8	70.5	6.99	61.9	60.3	53.4
Score	5156.4	4929.8	3909.8	3896.4	3698.8	3418.4	3332	2949.6
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HSA243428 HSM802302 HSM802391 AC021755 AC022168 AC012138 AC000997	AC087124 AC087119 DMU80223 AF056302 AC068641 AC011554 AC01168	AC005040 AC087121 AC020631 AC020631 AC068092 AC016691 HSDJ37C10	AC068037 AC025521 AC009522 AC024591 AL354874 AC011951	AC000087 AC0113367 AB0173383 HUAC002301 AC009133 HUAC003010 AC002399 AC073996
93 93 66 77	77 77 5 73 87 87	77 77 73 64 93	73 69 61 68 79 72	85 62 85 97 61 60 75
39.1 2162 30.5 1917 19.6 1138 10.3 157900 10.3 173364 9.8 164297 8.6 61029 7.4 76861	444477		222222	
2160.4 1687.6 1081.4 568.8 568.8 542.8 476.2	406.8 406.8 242.8 242.8 204.8 204.4	2000 2000 2000 1999 1998 198.6	1967.2 1966.2 1966.2 1995.4 1995.4	195.2 195.2 195 195 195 195 195
10 111 112 113 114 115	17 18 19 20 21 22 23	25 25 25 30 30 30	31 33 34 35 37	86644444 860112646
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ALIGNMENTS

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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                      13-JAN-2001
                                                                                                                                                                                                      Plowman, G.D., Martinez, R., Whyte, D. and Sudersanam, S. Protein kinases
                                     PAT
                                                                                                                                                                                                                                       Patent: WO 0073469-A 70 07-DEC-2000;
Sugen, Inc. (US)
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                                 AX056426 5163 bp DNA
Sequence 70 from Patent W00073469.
AX056426
AX056426.1 GI:12229133
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/db_xref="taxon:9606"
1177 c 1283 g 1213
                                                                                                                                                                                                                                                                          Location/Qualifiers
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                                                                                                                                      Homo sapiens
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93.3%; Score 5156.4; 100.0%; Pred. No. 0; iive 0; Mismatches

Query Match 93.3% Best Local Similarity 100.C Matches 5157; Conservative

DB 9; Length 5163;

348 288 245 66 CGGAGACCTACCCGCAACGACAGGACCACGAGCTACAGGCCCTGGAGGCCATCTACGGCG 125 228 305 aaggtetateaaatgaaagtgteaatttgttaaaatetegeetagaagaaetggeeaaga 408 948 306 AAGGICTATCAAATGAAAGTGICAATTIGITAAAATCTCGCCTAGAAGAACTGGCCAAGA 365 528 588 545 648 605 ctaagcaggaacgtttggaaattgctagtttgtcaaaccaagatcatacctctaagaagg 708 665 828 888 845 905 cggagagctacccgcaacgacaggaccacgagctacaggccctggaggccatctacggcg 229 atttagttttgtaccctcaaggcctaactggtgaagaagtatatgtaaaagtggatttga 529 aggagcagcagaggctgttggaggccaagcggaaagaagagcaggagcaacgtgaaatcc cygacttccaagacctgcggccggacgcttgcggaccggtcaaagagccccctgaaatca agcataacaagcccctcccaagtctttcatgaagaaatgctggaaaggcgggctcagg 606 CTAAGCAGGAACGTTTGGAAATTGCTAGTTTGTCAAACCAAGATCATACCTCTAAGAAGG 889 atcagctcatggtgcacaaagggaaatgtattggcagtgatgaacaacttggaaaattag 769 atggtaaacatcgggcaaactcctcaggaaggtctaggcgagaacgtcagtattctgtat 829 gtaatagtgaagattotcctggctcttgtgaaattctgtatttcaatatggggagtcctg 426 486 109 349 469 649 1009 qq g qq g qq g δ Óχ ò ŏ δ Óγ g δ a QQ Qγ g q οp δ ŏ δ ŏ ΩŸ Ω Qγ g οy Ω δ g δ QQ Dp δy

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Nagase, T., Kikuno, R., Ishikawa, K.I., Hirosawa, M. and Ohara, O. Prediction of the coding sequences of unidentified human genes. XVI. The complete sequences of 150 new CDNA clones from brain which Ohara,O., Nagase,T. and Kikuno,R. Direct Submission Submitted (31-JAN-2000) to the DDBJ/EMBL/GenBank databases. Osamu Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. mRNA, clone_lib:pBluescriptII SK plus 4565 4848 5028 4505 aacaggcatttaacacaactgtgaagcagctgctgtcacgcctgccaaagcaaagatacc 4908 4788 4805 4926 ITCIGIACAGCIAIAGAGAIGACIACIACAGAAICIIAIITIAACCCIAAAGAACIGICG 4985 14-MAR-2000 cds. atgaaaggaatggcagagaagcttccgataatcttgcagtgcaaaatctgaaggggtcat 4506 ATGAAAGGAATGGCAGAGAGACTTCCGATAATCTTGCAGTGCAAAATCTGAAGGGGTCAT tyctayccccygagaagctgtcagccagcactaggaggcgctatgaaactcaggtacaaa ctcgacttcagacctcccttgccaacttacatcagaaaagcagtgaaattgaaattctgg ttctgtacagctatagagatgactactacagaatcttatttaaccctaaagaactgtcg gtgtgctggagactgaacttgttggaccatgtactgcagaaactgaggactaaagtcactg 4446 GIGIGCIGGAGACIGAACIIGIGGACCAIGIACIGCAGAAACIGAGGACIAAAGICACIG tttctaatgcttcaggtttgtttgaaatccatggagcaacagtggttcccattgtgagtg partial AB037759 4994 bp mRNA Homo Sapiens mRNA for KIAA1338 protein, AB037759 code for large proteins in vitro DNA Res. 7 (1), 65-73 (2000) 2 (Bases 1 to 4994) sapiens brain cDNA to AB037759.1 GI:7243056 clone:fh16948. Homo sapiens (sites) Homo DEFINITION ACCESSION VERSION ORGANISM MEDLINE REFERENCE AUTHORS TITLE JOURNAL 4849 AUTHORS TITLE 4609 4669 4626 4686 4746 4806 4909 4866 4969 4986 4489 4549 4729 4789 5029 RESULT AB037759 REFERENCE JOURNAL KEYWORDS SOURCE LOCUS g οp g qq d g g ŏλ δ qq QY q QΥ g δŽ δ òγ ò qq δ οy Qγ δ

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Ohara, Kazusa DNA Research Institute, Laboratory of DNA Technology; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan (E-mail:cdnainfo@kazusa.or.jp, URL:http://www.kazusa.or.jp/huge/, Tel:+81-438-52-3913, Fas:+81-438-52-3914)
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Berlanga, J.J., Santoyo, J. and De Haro, C.
Characterization of a mammalian homolog of the GCN2 eukaryotic initiation factor Zalpha Kinase
Eur. J. Blochem. 265 (2), 754-762 (1999)
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Submitted (08-OCT-1999) Biochemistry and Molecular Biology, Indiana University School of Medicine, MS 4067, 635 Barnhill Drive, Indianapolis, IN 46202, USA
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VNLLKSHLEELAKKQCGEVMIFELAHHVQSFLSEHNKPPPRSFHEEMLERQAQEKQQR
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ELQEYCRHHEITYVALVSDKEGSHVKVKSFEKERQTEKRVLESDLVDHVMQKLRTKVG
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VQPRLQTTLANLHQKSSEIETLAVDLPKETILQFLEWDADEQAFNTTVKQLLSRLP
KQRYLKLVCDEIXNIKVEKKVSVLFLYSYRDDYRTLF"
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                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 5230)
                                                                                                                                                                                                                                                    Sood, R., Porter, A.C., Olsen, D.A., Cavener, D.R. and Wek, R.C.
A mammalian homologue of GCN2 protein kinase important for
translational control by phosphorylation of eukaryotic initiation
                                                11-0CT-2000
                                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 5230)
Sood,R., Porter,A.C., Olsen,D.A., Cavener,D.R. and Wek,R.C.
Direct Submission
                                                ROD
                                       33343 5230 bp mRNA RC musculus GCN2beta mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /protein_id="AAG22590.1"
/db_xref="G1:10764163"
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Genetics 154 (2), 787-801 (2000)
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4

Gaps

10;

686; Indels

DB 94; Length 5230;

70.5%; Score 3896.4; 86.2%; Pred. No. 0; live 0; Mismatches

Best Local Similarity 86.2 Matches 4358; Conservative

Query Match

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Qy Db	477	aagcccctcccaagtctttcatgaagaaatgctggaaaggcgggctcaggaggagcg 53
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oy Op		ggacacagaacggctgccattctacatgga
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gaccgagctgcacgcgggcagccggcgacgcacacagacggcctggacagcgtagaggcc 2156 2176 GCAGCACCCCATCCTCAGCAGCTCGGTGGAGTGGAGCACATCTGCAGAGCGTTCT 2235 2055 cacgageggeeggeeggaeggeegeegeegeeggaeteegggeeeetggeeaaggat 2096 2217 gecagtgeeegttteeeegeeaceggeeegggeteeagegatgaegaggaegaegaegag 2276 1876 GGAGCTITIGGAGCTGTCATCAAGGTGCAAAACAAGCTTGATGGCTGCTGCTATGCTGTG 1935 aagcgcatccccatcaacccggccagccggcagttccgcaggatcaagggcgaagtgaca 1976 1737 gattatgttgagactgttattcctagcaaccggctacccagtgctgccttcttagtgag 1796 gagatgtttggogtcttggccttctgctgtccctcagccaaggacaggaatgtgga 1556 gagtaccctgtgaccatccctagtgacttaccagctgactttcaagatttctaaagaaa 1616 gtcaagattacggactatagcatttctaagcgcctcgcagacatttgcaaggaggatgtg 1436 1336 AACTCCGTGGTGCACAAGGTTCTGAGGGGCGTCCAGTGTTGGTAGATGCCGAGGGCACT 1395 gtacgctaccttgcaatgaatctcaaagagcaagacgactccatcgtggtggacatttta 1196 CATGAGCGCCCAGCGTGCCAGGGACACCGCCCCAGACTGCACACCCCAGGCAC gccgcgccgccacccatcctcagcagctcggtggagtggagcacttcgggcgagcgctcg ataaatcccagccaaaatgcctctagtggaacaaagtcctgaagattctggaggacaa gtggagcacattagtggggtctctcttgctgcacacctgagccactcaggcccatccct 1917 2056 1797 1816 1936 1977 1996 2037 2157 1677 1857 1516 1557 1497 1156 1197 1216 1257 1276 1317 1137 g Д g ò g δ ò δ a δλ qq δy g δ g g δ qq δ 셤 δ g δλ q Óχ g ò Dp δy g Q 염

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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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                  (bases 1 to 5322)
Sood,R., Porter,A.C., Olsen,D.A., Cavener,D.R. and Wek,R.C.
Direct Submission
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LKGNFLIRTAKIQQLVCETIYRVFKRHGAVOLCTPLLLPRNRQIYEHNEAALFMDHSG
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EGSHVKVKSFEKERQTEKRVLESDLVDHVMQKLRTKVGDERNFRDASDNLAVQTLKGS
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Location/Qualifiers
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Location/Qualifiers
1. 5141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 5141)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sood.R., Porter,A.C., Olsen,D.A., Cavener,D.R. and Wek,R.C. A mammalian homologue of GCN2 protein kinase important for translational control by phosphorylation of eukaryotic initiation
                                                                                                                                                                                                                                                               11-OCT-2000
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Sood,R., Porter,A.C., Olsen,D.A., Cavener,D.R. and Wek,R.C.
Direct Submission
AF193342 5141 bp mRNA
Mus musculus GCN2a1pha mRNA, complete cds.
AF193342
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61.9%; Score 3410.1. 86.1%; Pred. No. 0; tive 0; Mismatches 611; Indels 10; Gaps

Matches 3835; Conservative

Best Local Similarity

Query Match

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Martinsried (15-FEB-2000) MIPS, Am Klopferspitz 18a, D-82152
Martinsried (GERMANY
Martinsried, GERMANY
Molecular Genome Analysis, German Cancer
Research Center (DKF2); Email s.wiemann@dkfz-hei@elberg.de;
sequenced by Qiagen (Hilden/Germany) within the cDNA sequencing
consortium of the German Genome Project.
This clone (DKF2p434F1312) is available at the RZPD in Berlin.
Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GERMANY; Email: clone@rzpo.de Further
information about the clone and the sequencing project is available
at http://www.mips.blochem.mpg.de/proj/cDNA/.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                          HSM802494 3351 bp mRNA PRI 18-FEB-2000 domo sapiens mRNA; cDNA DKFZp434F1312 (from clone DKFZp434F1312); ALL57497
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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DBH10B; sites NotI + SalI"
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polyA_site
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ry Match t Local ches 333	2194 ggage GGAG	2254 gcga ¹ GCGA ²	2314 ctg/ 21 CTG	2374 aga 181 AGA	2434 cga 241 CGA	2494 gag 301 GAG	2554 aga 361 AGA	2614 ctg 21 CTG	2674 cac 481 CAC	2734 agt 541 AG	2794 agg 601 AG	2854 tti 661 TT	2914 to	AT = AT	3034 ca 841 CA	3094 tg	3154 tg
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94 999 01 GGG 54 act 61 ACT 14 t99 21 TGG	4 990 1 GGC 4 99a 1 1 GGA 4 atc	1 TTC	4 aaa 1 AAA 1 agt 4 agt 1 AGT	4 caaa CAAA aggt 	TT TT	acac ACAC ttga	TGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
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IYTIYEIIQEFPALGERNYSIYLNHTMLLKAILLHCGIPEDKLSQVYIILYDRVTEKL
IRREVARKFCNISLSSNSLCRLYKFTEOKGDLODLMFTINSLIKQKTGIAQLVKYGLK
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EKERQTEKRYLETELVDHVLQKLRTKVTDERNGREASDNLAVQNLKGSFSNASGLFEI
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Sugano,S., Suzuki,Y., Ota,T., Obayashi,M., Nishi,T., Isogai,T., Shibahara,T., Tanaka,T. and Nakamura,Y.

Direct Submission ho the new years (Samito Canamak datahases, Sumito Calabases, Calabases, Calabases, Sumito Calabases, Cal
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Homo sapiens hepatoma cell_line:HepG2 cDNA to mRNA, clone_lib:HEP
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NEDO human cDNA sequencing project supported by Ministry of International Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Blotechnology; cDNA library construction, 5'-& 3'-end one pass sequencing: Departent of Virology and Human Genome Center, Institute of Medical Science, University of Tokyo (partly supported by Science and Technology
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Homo sapiens cDNA: FLJ23358 fis, clone HEP14996.
AK027011
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KEYWORDS

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4593 aatotgaaggggtoattitctaatgottoaggtttgittgaaatocatggagoaacagtg 4652
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HSA243428 2162 bp mRNA PRI 15-OCT-1999 Homo sapiens partial mRNA for putative eIF2 alpha kinase (GCN2

GI:6065913

AJ243428 AJ243428.1 dene)

VERSION

DEFINITION ACCESSION

HSA243428

RESULT

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/LTAISLALION="ALEMDHSGMLVMLPFDLRIPFARYVARNNILILKRYCIERVFRP
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FRQRYLKLAVCDEIXNIKVEKKVSVLFLXSYRDDYYRILF"
<2139. . 2144
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                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia; Eutheria, Primates, Catarrhini, Hominidae, Homo.

    (bases 1 to 2162)

                                                                                                                                                                                                                                                                                        Submitted (28-JUN-1999) Santoyo J., Molecular Biology, Centro de Biologia Molecular 'Severto Ochoa', Fac. Ciencias. U.A.M., Cantoblanco, Madrid, 28049, SPAIN
Location/Qualifiers
                                                                                                                    Berlanga, J.J., Santóyo, J. and De Haro, C.
Characterization of a mammalian homolog of the GCN2 eukaryotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3364 ctgccctattcatggaccacagggggatgctggtgatgcttccttttgacctgcggatcc 3423
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Eur. J. Biochem. 265 (2), 754-762 (1999)
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Local Similarity 100.0%; Pred. No. v,
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/db_xref="GI:6065914"
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/organism="Homo sapiens"
/db_xref="taxon:9606"
eIF2 alpha kinase; GCN2 gene
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Direct Submission
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3724 361 3784 421 3844	3904 541 3964 601	4024 661 4084 721	4144 781 4204 841	4264 901 4324 961	4384 1021 4444 1081	4504 1141 4564 1201	4624 1261 4684 1321 4744 1381
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1917)
Poustka, A., Klein, M., Mewes, H.W., Gassenhuber, J. and Wiemann, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (15-JAN-2000) MIPS, Am Klopferspitz 18a, D-82152
Submitted (15-JAN-2000)
Martinsried, GERMANY
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKF2); Emails S. Wiemannédkfz-heidelberg.de;
sequenced by DKFZ (German Cancer Research Center,
Heidelberg/Germany) within the CDNA sequencing consortium of the
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HOMO sapiens mRNA; cDNA DKF2p434H149 (from clone DKF2p434H149).
AL137676
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German Genome Project.

This clone (DKF2p434H149) is available at the RZPD in Berlin.
Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GERMANY: Email: clone@rzpd.de Further
information about the clone and the sequencing project is available
at http://www.mips.biochem.mpg.de/proj/cDNA/.
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This clone (DKFZp434P0612) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de Further information about the clone and the sequencing project is available at http://www.mips.biochem.mpg.de/proj/CDNA/.
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ASDNLAVQNLKGSFSNASGLFEIHGATVVPIVSVLAPEKLSASTRRRYETQVQTRLQT
SLANLHQKSSEIEILAVDLPKETILQFLSLEWDADEQAFNTTVKQLLSRLPKQRYLKL
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Homo sapiens mRNA; cDNA DKFZp434P0612 (from clone DKFZp434P0612);
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/clone_llb="434 (synonym: htes3). Vector pSportl; host
DH10B; sites NotI + SalI"
/dev_stage="adult"
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Direct Submission
Submitted (15-JAN-2000) MIPS, Am Klopferspitz 18a, D-82152
Martinsried, GERMANY
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/protein_id="CAB70849.1"
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/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 CCGGAGAAGCTGTCAGCCAGCACTAGGAGGCGCTATGAAACTCAGGTACAAACTCGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 CAGACCTCCCTTGCCAACTTACATCAGAAAAGCAGTGAAATTGAAATTCTGGCTGTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 CTACCCAAAGAAACAATATTACAGTTTTTATCATTAGAGTGGGATGCTGATGAACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481 GTCTGTGATGAAATTTATAACATCAAAGTAGAAAAAAAGGTGTCTGTGCTATTTCTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4977 agctatagagatgactactacagaatcttattttaaccctaaagaactgtcgttaacctc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5037 attcaaacagacagaggcttatactggaataatggaatgttgtacattcatcataattta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661 AAATTAAATTCTAAGAAGAGGCTGGGTGCAGTGGCTCACACCTTTAATCCCAGCACTTTG
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                                                                                                                                                                                                                                                                                                                                                            gcttcaggtttgtttgaaatccatggagcaacagtggttcccattgtgagtgtgctagcc
                                              ö
      Length
                                                Indels
  93;
    Score 1081.4; DB 9
Pred. No. 4.1e-205;
                                              0; Mismatches
19.6%;
99.9%;
                                                Matches 1082; Conservative
    Query Match
Best Local Similarity
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AC025168
AC025168.6 GI:13621223
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79724
90363
90463
93021
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AC025168/c
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Submitted (20-JAN-2000) Multimegabase Sequencing Center, University
of Washington, Po Box 357730, Seattle, WA 98195, USA
On Mar 21, 2001 this sequence version replaced 91:8272664.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rowen, L., Madan, A., Qin, S., Baradarani, L., Birditt, B., Bloom, S., Dors, M., Dickhoff, R., Fleetwood, P., Harrison, G., Kaur, A., Madan, A., Nesbitt, R., Traicoff, R. and Hood, L. Sequencing of human chromosome 15 D15S146-D15S117 region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
2 (bases 1 to 157900)
2 (bases 1 to 157900)
8 (bases 2, Din, S., Abbasi, N., Baradarani, L., Birditt, B., Bloom, S., Dors, M., Dickhoff, R., Fleetwood, P., Harrison, G., James, R., Kaur, A., Madan, A., Owen, M.P., Ratcliffe, A., Shaffer, T. and Hood, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

    (bases 1 to 157900)

                                    HOMO sapiens chromosome 15 clone RP11-521C20 map 15q14, WORKING ACO21755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  estimates computed by the Phrap assembly program.
All manually edited bases have been reduced to quality zero.
Quality levels above 40 are expected to have less than
1 error in 10,000 bp.
Base-by-base quality values are not generally visible from the
GenBank flat file format but are available as part
of this entry's ASN.1 file.
961 AAAAAAAAAAAAAAAAAATTTTTTTTTAAGAAGCTGTCCTACAAAGTTGAGCTTTGT 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              * consists of 6 contigs. Gaps between the contigs
* are represented as runs of N. The order of the pieces
* is believed to be correct as given, however the sizes
* of the gaps between them are based on estimates that have
* provided by the submittor.
* This sequence will be replaced
* by the finished sequence as soon as it is available and
* the accession number will be preserved.

* 67962 68061; gap of unknown length
* 67962 16767; contig of 8706 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOTE: This is a 'working draft' sequence. It currently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This entry has been annotated with sequence quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center: Multimegabase Sequencing Center
Center code: UWMSC
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                                                                                                                    5517 ata 5519
                                                                                                                                                               1081 ATA 1083
                                                                                                                                                                                                                                                                                    DEFINITION
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AC021755
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JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
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TITLE

COMMENT

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53084 GAGCCTCAGGAGGTTGAGGCTGCAGTGAGCTGTGACTGCGCCACTGCACTCCAGTCTGGG 53143
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53204 CTGTCCTACAAAGTTGAGCTTTGTTAGTTTTTCATGTGTAATATATTATAAATTTATCTT 53263
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="RPCI human BAC library 11"
/note="This clone overlaps RP11-43D14 and CTD-2006D8"
35607 c 36148 g 42500 t 508 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cacacctttaatcccagcactttgggaagccaaggcaggaagactgcttgaaaccaggag
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HOMO Sapiens Chromosome 15 clone RP11-43D14 map 15q14, ***
SEQUENCING IN PROGRESS ***, 1 ordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5193 tttgagaccagcctgagcaacaaagcaagaccccatctctataaaaaactaaaaaattag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10.3%; Score 568.8; DB 66; Length 157900; 99.7%; Pred. No. 1.8e-103;
76867: gap of unknown length
79623: contig of 2756 bp in length
79323: gap of unknown length
90362: contig of 10639 bp in length
90462: gap of unknown length
93020: contig of 2558 bp in length
93120: gap of unknown length
157900: contig of 64780 bp in length.
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                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                            /clone="RP11-521C20"
                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                 /chromosome="15"
                                                                                                                                                                                                                                                                                                                  /map="15q14
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DEFINITION
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                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (07-MAR-2000) Multimegabase Sequencing Center, University of Washington, PO BOX 357730, Seattle, WA 98195, USA on Apr 13, 2001 this sequence version replaced gi:10305066.
                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 173364)
                                                                                                                                                                                                                                                                                   Rowen, L., Madan, A., Qin, S., Abbasi, N., Baradarani, L., Birditt, B., Bloom, S., Dors, M., Dickhoff, R., Fleetwood, P., Harrison, G., James, R., Kaur, A., Madan, A., Owen, M.P., Ratcliffe, A., Shaffer, T.
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/note="This clone overlaps RP11-325N19 and RP11-521C20"
85556 c 35570 g 51004 t
                                                                                                                                        Rowen,L., Madan,A., Qin,S., Baradarani,L., Birditt,B., Bloom,S.,
Burke,J., Dors,M., Fleetwood,P., Kaur,A., Madan,A., Nesbitt,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Base-by-base quality values are not generally visible from the GenBank flat file format but are available as part of this entry's ASN.1 file.
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* This sequence will be replaced by the squence as soon as it is available and by the finished sequence as soon as it is available and the accession number will be preserved.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequencing vector: pUC18; L08752
Chemistry: Dye-terminator Big Dye; 90% of reads
Chemistry: Dye-primer Big Dye; 10% of reads
Assembly program: Phrap; version 0.990399
Insert size: 172000; agarose-fp
Quality coverage: 12.6x in Q20 bases; sum-of-contigs
                                                                                                                                                                                        Sequencing of human chromosome 15 D15S146-D15S117 region Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Web site: http://chroma.mbt.washington.edu/msg_www
Contact: leerowen@systemsbiology.org
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    .173364
    /organism="Homo sapiens"

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HTG; HTGS_PHASE2; HTGS_FULLTOP
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                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                   and Hood, L.
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                                                  ORGANISM
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Dipublished

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Submitted (20-007-1999) Whitehead Institute/MIT Center for Genome
Research, 320 Charles Street, Cambridge, MA 02141, USA
On Jul 7, 2000 this sequence version replaced 91:7230052.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5193 tttgagaccagcctgagcaacaaagcaagaccccatctctataaaaactaaaaaattag 5252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4919 GAGCCTCAGGAGGTTGAGGCTGCAGTGAGCTGTGACTGCGCCACTGCACTCCAGTCTGGG 4860
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                                                                                                                                                                                                                                                                                                                                                                                                                     5073 atgttgtacattcatcataatttaaaattaaaattctaagaagaggctgggtgcagtggct 5132
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                                                                                                                                                                                                                                                                         5159 ATGITGIACATICATCATAAATITAAAATICTAAGAAGAGGGCTGGGTGCAGTGGCT
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Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens, clone RP11-10K15
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HTG; HTGS_PHASE1; HTGS_DRAFT
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0; Gaps

Indels

Matches 570; Conservative

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Similarity

4953 aaggtgtotgtgctatttotgtacagctatagagatgactactacagaatcttattttaa 5012

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misc_feature
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                                                                            Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                            NOTE: This is a 'working draft' sequence. It currently consists of 34 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                   Insert size: 153000; again accept Insert size: 160997; sum-of-contigs Quality coverage: 3.4 in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28927 29026: gap of 100 bp 29027 34159: contig of 5133 bp in length 34160 34259: gap of 100 bp 34260 343975: contig of 3716 bp in length 38976 38075: gap of 100 bp 38976 38075: gap of 100 bp 44056 48039: contig of 3884 bp in length 4356 44055: gap of 48039: contig of 3884 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                               Consensus quality: 142640 bases at least Q40 Consensus quality: 152432 bases at least Q30 Consensus quality: 157096 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1065 1164: gap of 100 bp 1165 2366: contig of 1202 bp in length 2367 2466: gap of 100 bp 100 bp 3540: contig of 1074 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7342: gap of 100 bp 8453: contig of 1111 bp in length 8553: gap of 100 bp 9820: contig of 1267 bp in length 9920: gap of 100 bp 100 bp 10938: contig of 1018 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3541 3640: gap of 100 bp 3641 4861: contig of 1221 bp in length 4862 4961: gap of 100 bp 4962 5968: contig of 1007 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14249 14348: gap of 100 bp
14349 15680: contig of 1332 bp in length
15681 15780: gap of 100 bp
15781 17240: contig of 1460 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12356: gap of 100 bp 14248: contig of 1892 bp in length
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18693: contig of 1353 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                Assembly program: Phrap; version 0.960731
                                                                                                                               Center code: WIBR
Web site: http://www-seq.wi.mit.edu
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7242: co
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85554 85653: gap of 100 bp 85554 85653: gap of 100 bp 85654 94602: contig of 8949 bp in length 94703 104093: contig of 9391 bp in length 104094 104193: gap of 100 bp 104194 112396 12354 contig of 100 bp 112366 123244: contig of 100 bp 112496: gap of 100 bp 100 bp 112496: gap of 100 bp 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      123345 123344: gap of 100 bp 123345 123344: gap of 100 bp 123342 135527: gap of 100 bp 135528 147434: contig of 11907 bp in length 147435 14534: gap of 100 bp 147435 145297: contig of 16763 bp in length 147535 164297: contig of 16763 bp in length 100 cation/Qualifiers
53767: contig of 5628 bp in length
167: gap of 100 bp
59812: contin 2
                                                                                                                                                                                                                                                                      70727: gap of 100 bp 77701: contig of 6974 bp in length 77801: gap of 100 bp 8553: contig of 7752 bp in length
                                                                                                                                                      gap of 100 bp 66: contig of 3154 bp in length
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85553: ~
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38076. .43955
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70627: cont
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GI:13431057
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5262 5867:
               HTG; HTGS_PHASEO
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                                                                                                         Unpublished
 AC090997.1
                                     ORGANISM
                                                                                                            JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                     AUTHORS
                                                                         REFERENCE
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               KEYWORDS
  VERSION
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                         SOURCE
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                                                                                                                                                                                                                                                                       DB 62; Length 164297;
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                                                                                                                                                                                                                                                                    9.8%; Score 542.8; DB 62;
98.7%; Pred. No. 2.6e-98;
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Matches 547; Conservative
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Disses 1 to 61029)

Salizen, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, S., Barren, N., Bastlen, V., Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Chang, J., Cheppel, Y., Colangelo, M., Diaz, J.S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Ilie, Y., Johnson, R., Jones, C., Karatas, A., Lanccque, K., Lamazares, R., Landers, T., Lehoczky, J., Leyvine, R., Liu, G., McCernn, K., McPheeters, R., Meltrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Norbu, C., Norman, C.H., O'Connell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Resta, R., Rieback, M., Riley, R., Schauer, S., Schupack, R., Santos, R., Schauer, S., Schupack, C., Spencer, B., Stange-Thomann, N., Trigilio, J., Yassillev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainout, J., Travis, M., Travis, N., Trigillio, J., Wassillev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainout, J., Zembek, L., Zimmer, A. and Zody, M.

Submitted (22-Mar-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RM/RepeatMasker:html
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center: Whitehead Institute/ MIT Center for Genome Research Center code: WIBR
                                     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 61029)
Birren, B., Linton.L., Nusbaum, C. and Lander, E.
Homo sapiens chromosome 15, clone RP11-521C20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: sequence_submissions@genome.wi.mit.edu
------ Project Information
Center project name: L13141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the record is updated, the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                571 670: gap of 100 bp 671 1297: contig of 627 bp in length 1298 1397: gap of 100 bp 1398 2087: contig of 690 bp in length
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contig of 769 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
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Center clone name: 521_C_20
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2188 2956: cont
2957 3056: gap of
3657 3690: cont
3691 3790: gap of
3791 4405: cont
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4506 5161; cor
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44 13543: gap of 100 bp 11 length 1412: contig of 669 bp in length 13 14312: gap of 100 bp 10
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                                                                               of 100 bp contig of 631 bp in length of 100 bp contig of 622 bp in length
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                                                                                                                                                                                                                                                  of 100 bp contig of 670 bp in length
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13443: contig of 661 bp in length
                                       bp in length
                                                                                                                                                                                                                                                                                                                                      100 bp
f 724 bp in length
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23104: contig of 647 bp in length
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contig of 662 bp in length
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32914: contig of 717 bp in length
33014: gap of 100 bp
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32097: contig of 708 bp in length
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0630: contig of 6

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7361: con++
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Pred. No. 4.9e-85;
0; Mismatches 5; Indels 2;
33615 33618: contig of 604 bp in length 34519 3458: contig of 640 bp in length 34519 3458: contig of 640 bp in length 34519 3458: contig of 519 bp in length 3569 3577: gap of 100 bp 3569: contig of 612 bp in length 3569: contig of 612 bp in length 3569: contig of 612 bp in length 3569: 35789: gap of 100 bp 37093 37964: contig of 606 bp in length 37093 37963 app of 100 bp 37093 37864: contig of 622 bp in length 37093 37964: contig of 622 bp in length 37093 37965: gap of 100 bp 37093 37865: contig of 622 bp in length 37093 37865: contig of 622 bp in length 40072: contig of 622 bp in length 40073: contig of 622 bp in length 40073: contig of 624 bp in length 40073: contig of 624 bp in length 40073: contig of 610 bp in length 40073: contig of 610 bp in length 1206 app of 100 bp in length 1206: gap of 100 bp in length 4212: contig of 638 bp in length 43158: contig of 638 bp in length 4418: contig of 638 bp in length 45359: contig of 641 bp in length 6525: gap of 100 bp in length 65359: contig of 667 bp in length 65359: contig of 667 bp in length 659 46855: contig of 667 bp in length 659 46855: contig of 667 bp in length 659 46855: contig of 667 bp in length 659 6555: gap of 100 bp 100 b
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